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(56) Documents Cited

GB 2246555 A EP 0778018 A1 WO 98/17229 A2
US 5686112 A

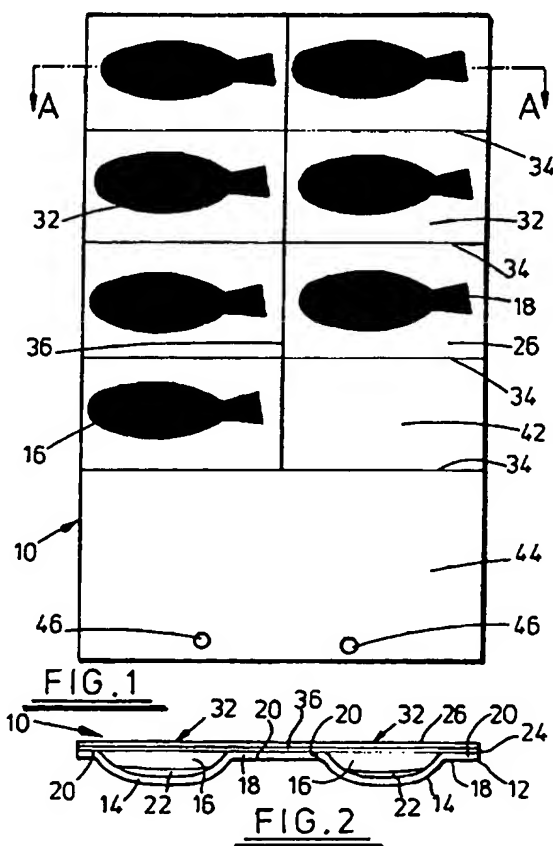
(58) Field of Search

UK CL (Edition R) B8P PK10
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(54) Abstract Title

Medicine pack

(57) A medicine pack 10 for dispensing liquid medicine comprises a first sheet 12 with two or more receptacles 14, formed from depressions, for storing medicine dosages, each receptacle being selectively separable from the first sheet, and a second sheet 24 being peelable from the first sheet to open a receptacle for administration of the medicine dosage. The first sheet may be made of a plastics material such as polyvinyl chloride or polypropylene and may be separable into sections 32 corresponding to an individual receptacle. The second sheet may be self supporting, weakened along boundary lines 34,36, and may be made of metal foil or a thin plastic sheet. There may be a separate support sheet 26 which may be made of card, may be laminate in structure, may have lines of weakness defined on the periphery by a thinning of material or perforations, and may receive production information such as a bar code, directly or via an applied adhesive label. An uppermost surface may also be printable. The receptacles may be spoon shaped, may incorporate a tab handle 18 and may correspond in number to a preset time period. The pack may have holes 46 for storage in a ring binder and a second area for the presentation of product information.



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At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

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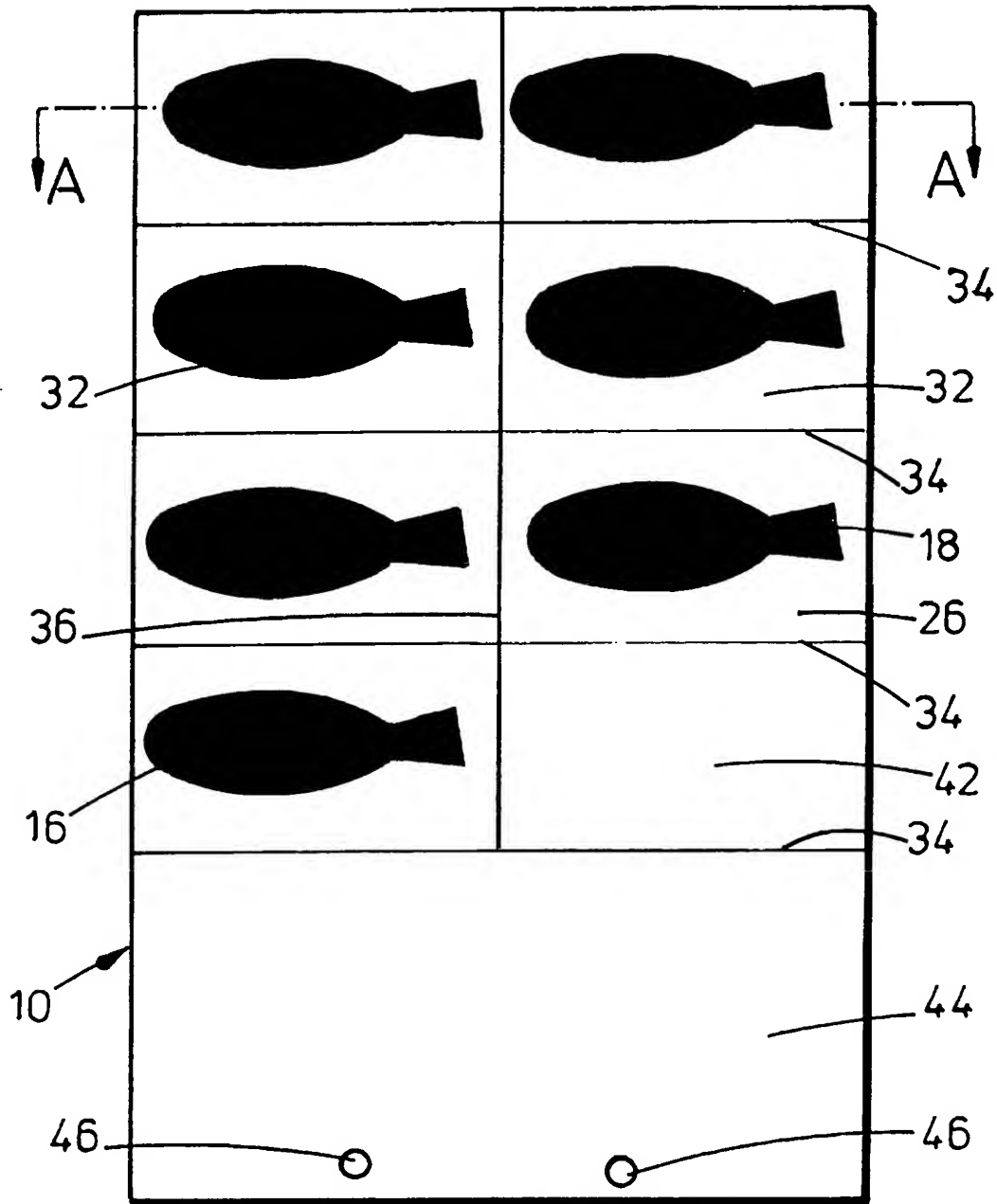


FIG. 1

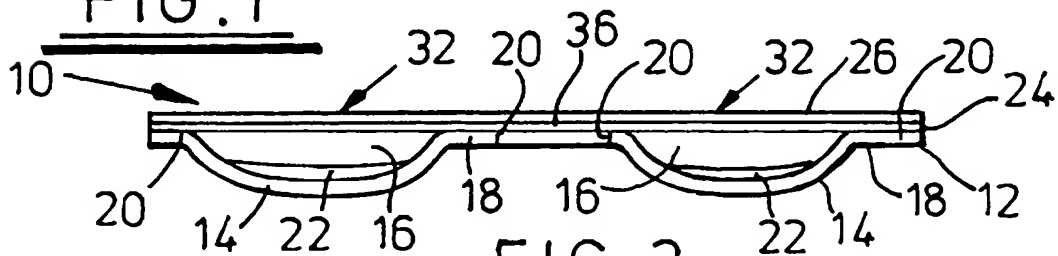


FIG. 2

TITLE: Medicine Packs.

DESCRIPTION

This invention concerns medicine packs, and is particularly concerned with medicine packs for use in dispensing predetermined doses of liquid medicine.

Generally liquid medicines are dispensed from a bottle using a spoon. However, the actual dosage dispensed can be inaccurate and there is no way of determining how many doses have been given without keeping a separate record.

An object of this invention is to provide a medicine pack for dispensing liquid medicines whereby the above-mentioned problems may be avoided.

According to this invention there is provided a medicine pack for use in dispensing liquid medicines comprising a first sheet having two or more depressions forming receptacles for liquid medicine dosages and a second sheet affixed on the first sheet to seal in the medicine dosages, each receptacle being selectively separable from the first sheet and the second sheet being peelable from the first sheet to open a receptacle for administration of the medicine dosage.

The medicine pack of the invention preferably also includes a support sheet, which is preferably of card.

The second sheet is preferably of metal foil or may be of thin plastics sheet. The support sheet and the second sheet are preferably a laminate. As an alternative the second sheet may be provided with sufficient thickness to render the provision of a support sheet unnecessary. An important proviso is that the uppermost layer of the

medicine pack have a printable surface, so that product information can be provided thereon.

The receptacle depressions are preferably in the form of spoon shapes and the separable component preferably includes a tab or the like to provide a handle. The first sheet is preferably made of plastics material, such as polyvinyl chloride or polypropylene. The separable components are preferably defined by a line of weakness around their peripheries. The line of weakness may be, for example, a thinning of the material of the first sheet or a line of perforations. Thinning of the material of the first sheet may be produced in the moulding of the plastics material forming the first sheet or possibly by a cut line.

The first sheet is also preferably separable into sections each having a medicine receptacle therein.

The second sheet is preferably perforated or otherwise weakened along the lines forming the boundaries of each section. When present, the support sheet is preferably also perforated.

The support sheet when present may also have areas thereof for receiving product information. Typically an area will be provided to receive a bar code either printed onto the support sheet or added on an adhesive label. A second area may be provided for other product information, such as the name of the medicine, its source and dosage instructions. For convenience additional areas of the support sheet may also be separable, such as by provision of lines of weakness, such as perforations, between them and other parts of the pack.

The medicine pack of the invention is preferably adapted for storage in a ring

binder. To that end, either the support sheet or the second sheet, if a support sheet is not provided, may be provided with suitably spaced holes thereon to fit the rings of a ring binder. The ring binder holes may conveniently be in said second area of the pack. This has the advantage of allowing medicine packs of the present invention to be incorporated into existing medication management systems, such as involving ring binders or card index storage.

Preferably the medicine packs of the invention will have a number of medicine receptacles corresponding to a predetermined time period. A typical medicine pack of the invention may, for example, have seven medicine receptacles for use in administering one medicine dosage per day. Obviously packs with more or less medicine receptacles may be provided for other medicine dosage regimes.

A preferred medicine pack of the invention allows one medicine receptacle to be separated from the pack, the second layer removed and the medicine to be administered to a patient or self-administered in the same manner as with a spoon. By reference to the pack it will be evident how many doses have been taken.

The receptacle depressions can be sized to take any required dosage volume. A typical dosage volume for general use is 20 ml but the receptacle depressions will normally be large enough to accommodate any typical dosage volume.

This invention will now be further described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 is a plan view of a medicine pack according to the invention; and

Figure 2 is a section along line AA of Figure 1.

Referring to the accompanying drawings, a medicine pack 10 comprises a

plastics sheet 12, such as of polyvinyl chloride or polypropylene, formed with spoon-shaped formations 14 therein.

The spoon-shaped formations include a liquid medicine receptacle part 16 and a handle 18. The spoon-shaped formations are separable selectively from the plastics sheet by means of a line of weakness 20, such as of perforations, around their periphery.

The receptacles 16 contain a dosage of a liquid medicine 22 and are sealed by a metal foil sheet 24 heat sealed around the periphery of each spoon-shaped formation 14. The foil sheet is laminated to a support sheet 26 of card having a printable top surface to receive information concerning the medicine contained in the pack. Each spoon-shaped formation 14 is accommodated in an area 32 of the support sheet that is separable from the other areas 32 by means of perforation lines 34 and 36.

As illustrated, there are seven medicine doses provided one for each day of the week, for example. A dose is taken by firstly separating an area 32 from the pack, separating the spoon formation from that area of the pack, peeling off the foil cover with support sheet and administering the dose to a patient or to oneself from the spoon.

The medicine pack of the support sheet has an area 42 on which product information can be provided such as in the form of a bar code. A second area 44 of the support sheet 26 onto which the foil layer does not extend can be used for providing further product information and dosage instructions. Furthermore, that area 44 is provided with ring binder holes 46, so that the medicine pack can be stored in a ring binder, which is especially useful for medicinal institutions, where monitoring of medicine administration is vitally important.

Claims

1. A medicine pack for use in dispensing liquid medicines comprising a first sheet having two or more depressions forming receptacles for liquid medicine dosages and a second sheet affixed on the first sheet to seal in the medicine dosages, each receptacle being selectively separable from the first sheet and the second sheet being peelable from the first sheet to open a receptacle for administration of the medicine dosage.
2. A medicine pack as claimed in claim 1, wherein the second sheet is self-supporting.
3. A medicine pack as claimed in claim 1, further comprising a support sheet.
4. A medicine pack as claimed in claim 3, wherein the support sheet is made from card.
5. A medicine pack as claimed in any one of claims 1 to 4, wherein the second sheet is made from metal foil.
6. A medicine pack as claimed in any one of claims 1 to 4, wherein the second sheet is made from thin plastics sheet.
7. A medicine pack as claimed in any one of claims 2 to 6, wherein the support sheet and the second sheet are a laminate.
8. A medicine pack as claimed in any one of claims 1 to 7, wherein the uppermost layer of the medicine pack has a printable surface.
9. A medicine pack as claimed in any one of claims 1 to 8, wherein the receptacle depressions are in the form of spoon shapes.

10. A medicine pack as claimed in any one of claims 1 to 9, wherein the receptacles include a tab or the like to provide a handle.
11. A medicine pack as claimed in any one of claims 1 to 10, wherein the first sheet is made from plastics material.
12. A medicine pack as claimed in claim 11, wherein the first sheet is made from polyvinyl chloride or polypropylene.
13. A medicine pack as claimed in any one of claims 1 to 12, wherein the receptacles are defined by a line of weakness around their peripheries.
14. A medicine pack as claimed in claim 13, wherein the line of weakness is a thinning of the material of the first sheet.
15. A medicine pack as claimed in claim 13, wherein the line of weakness is a line of perforations in the first sheet.
16. A medicine pack as claimed in any one of claims 1 to 15, wherein the first sheet is separable into sections each having a medicine receptacle therein.
17. A medicine pack as claimed in claim 16, wherein the second sheet is weakened along the lines forming the boundaries of each section.
18. A medicine pack as claimed in claim 17, wherein the weakness is formed by perforations along the lines forming boundaries of each section.
19. A medicine pack as claimed in any one of claims 3 to 18, wherein the support sheet is perforated.
20. A medicine pack as claimed in any one of claims 3 to 19, wherein the support sheet has areas thereof for receiving product information.

21. A medicine pack as claimed in claim 20, wherein an area is provided on the support sheet to receive a bar code printed onto the support sheet.
22. A medicine pack as claimed in claim 20, wherein an area is provided on the support sheet to receive a bar code added on an adhesive label.
23. A medicine pack as claimed in any one of claims 1 to 22, wherein the pack is adapted for storage in a ring binder, the pack comprising suitably spaced holes thereon to fit the rings of a ring binder.
24. A medicine pack as claimed in any one of claims 20 to 23, wherein a second area is provided for other product information.
25. A medicine pack as claimed in claim 24, wherein the ring binder holes are situated in the second area of the pack.
26. A medicine pack as claimed in any one of claims 1 to 25, comprising a number of medicine receptacles corresponding to a pre-determined time period.
27. A medicine pack for use in dispensing liquid medicines substantially as hereinbefore described with reference to the accompanying drawings.



-8-

Application No: GB 9925893.1
Claims searched: all

Examiner: Michael Young
Date of search: 27 January 2000

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.R): B8P: PK10

Int Cl (Ed.7): B65D: 75/32, 75/34, 75/36

Other: ONLINE: WPI EPODOC JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2246555 A (GEORGE) whole document	1,5,8,11,13,15,16,17,18,26
X	EP0778018 A1 (BOLTRI) whole document	1,2,3,5,6,7,8,9,10,11,12,16,17,18
X	WO 98/17229 (LOGEMANN) whole document	1,5,8,13,15,16,17
X	US 5686112 (LIEDTKE) whole document	1,5,8,13,15,16,17,26

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
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